

US-PAT-NO: 6697502

DOCUMENT-IDENTIFIER: US 6697502 B2

TITLE: Image processing method for
detecting human figures in a
digital image

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INVENTOR-INFORMATION:

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APPL-NO: 09/ 737026

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US-CL-CURRENT: 382/115, 382/118 , 382/164 ,
382/168

ABSTRACT:

A digital image processing method for detecting human figures in a digital color image, comprising the steps of: providing a digital color image having **pixels** representing RGB values; segmenting the image into non-overlapping regions of homogeneous color or texture; detecting candidate regions of human **skin** color; detecting candidate regions of human **faces**; and for each candidate **face** region, constructing a human figure by grouping regions in the vicinity of the **face** region according to a pre-defined

graphical model of the human figure,
giving priority to human skin color regions.

13 Claims, 16 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 6

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Abstract Text - ABTX (1):

A digital image processing method for detecting human figures in a digital color image, comprising the steps of: providing a digital color image having pixels representing RGB values; segmenting the image into non-overlapping regions of homogeneous color or texture; detecting candidate regions of human skin color; detecting candidate regions of human faces; and for each candidate face region, constructing a human figure by grouping regions in the vicinity of the face region according to a pre-defined graphical model of the human figure, giving priority to human skin color regions.

Brief Summary Text - BSTX (24):

According to the present invention, there is provided a solution to the problems of the prior art. The need is met according to the present invention by providing a digital image processing method for detecting human figures in a digital color image having pixels representing RGB values, comprising the steps of: segmenting the image into non-overlapping

regions of homogeneous color or texture; detecting candidate regions of human skin color; detecting candidate regions of human faces; and for each candidate face region, constructing a human figure by grouping regions in the vicinity of the face region according to a predefined graphical model of the human figure, giving priority to human skin color regions.

Brief Summary Text - BSTX (25):

According to a feature of the present invention, there is provided a digital image processing method for detecting human figures in a digital color image having pixels representing RGB values, comprising the steps of: providing a digital color image having pixels representing RGB values; segmenting the digital color image into non-overlapping regions of homogeneous color or texture; detecting candidate regions of human skin color; detecting candidate regions of human faces; and for each candidate face region, constructing a human figure by grouping regions in the vicinity of the face region according to a pre-defined graphical model of the human figure, giving priority to human skin color regions.